WHAT IS CLAIMED IS:

1. A transmission circuit comprising a baseband circuit for generating and outputting at least one transmission data constituted by first and second channel data, spreading means for spreading the transmission data with a spreading code that differs for each transmission channel, multiplication means for respectively weighting amplitudes of the first and second channel data by using a combination of two gain factors determined by a transmission data rate, digital modulation means for digitally modulating the first and second channel data whose amplitudes are weighted by said multiplication means, a quadrature modulator for quadrature-modulating the first and second channel data digitally modulated by said digital modulation means and outputting the data as a transmission signal, and an antenna for emitting the transmission signal output from said quadrature modulator as a radio wave,

wherein said multiplication means weights the amplitudes of the first and second channel data by using gain factors that keep power of the transmission signal output from said quadrature modulator constant regardless of the transmission data rate without changing a ratio of a combination of gain factors determined by the transmission data rate.

2. A transmission circuit as claimed in claim 1, wherein said multiplication means weights the amplitudes of the first and second channel data by using gain factors determined on the basis of power of the transmission signal output from said quadrature modulator without changing a ratio of a combination of gain factors determined by the transmission data rate.

3. A transmission circuit as claimed in claim 1, wherein said multiplication means weights the amplitudes of the first and second channel data by using gain factors that make a sum of a square of a gain factor for weighting the amplitude of the first channel data and a square of a gain factor for weighting the amplitude of the second channel data constant regardless of the transmission data rate without changing a ratio of a combination of gain factors determined by the transmission data rate.

4. A transmission circuit as claimed in claim 1, wherein said baseband circuit comprises a table storing a gain factor determined by the transmission data rate and a gain factor used by said multiplication means to weight the transmission data, and outputs a gain factor corresponding to the transmission data rate from said table to said multiplication means on the basis of the transmission data rate.

5. A transmission circuit as claimed in claim 2,

wherein said baseband circuit comprises a table storing a gain factor determined by the transmission data rate and a gain factor used by said multiplication means to weight the transmission data, and outputs a gain factor corresponding to the transmission data rate from said table to said multiplication means on the basis of the transmission data rate.

6. A transmission circuit as claimed in claim 3, wherein said baseband circuit comprises a table storing a gain factor determined by the transmission data rate and a gain factor used by said multiplication means to weight the transmission data, and outputs a gain factor corresponding to the transmission data rate from said table to said multiplication means on the basis of the transmission data rate.

7. A transmission circuit comprising a baseband circuit for generating and outputting at least one transmission data constituted by first and second channel data, spreading means for spreading the transmission data with a spreading code that differs for each transmission channel, multiplication means for respectively weighting amplitudes of the first and second channel data by using a combination of two gain factors determined by a transmission data rate, digital modulation means for digitally modulating the first and second channel data

whose amplitudes are weighted by said multiplication means, a quadrature modulator for quadrature-modulating the first and second channel data digitally modulated by said digital modulation means and outputting the data as a transmission signal, and an antenna for emitting the transmission signal output from said quadrature modulator as a radio wave,

wherein said transmission circuit further comprises:

(a) amplification means for amplifying the transmission signal output from said quadrature modulator with a gain based on a control voltage;

(b) a transmission level circuit for determining a transmission power value of the second channel data component;

(c) a first gain offset circuit for adding, to a transmission power value determined by said transmission level circuit, a first gain correction amount for controlling a gain of said amplification means to keep transmission power of the second channel data component at the antenna end constant regardless of the transmission data rate by using a combination of two gain factors determined by the transmission data rate, and outputting the transmission power value; and

(d) a voltage generating circuit for generating a voltage for controlling the gain of said amplification

means, on the basis of the transmission power value output from said first gain offset circuit, and

wherein said antenna emits the transmission signal output from said quadrature modulator and amplified by said amplification means as a transmission signal.

8. A transmission circuit as claimed in claim 4, wherein said transmission circuit further comprises:

(a) amplification means for amplifying the transmission signal output from said quadrature modulator with a gain based on a control voltage;

(b) a transmission level circuit for determining a transmission power value of the second channel data component;

(c) a first gain offset circuit for adding, to a transmission power value determined by said transmission level circuit, a first gain correction amount for controlling a gain of said amplification means to keep transmission power of the second channel data component at the antenna end constant regardless of the transmission data rate by using a combination of two gain factors determined by the transmission data rate, and outputting the transmission power value; and

(d) a voltage generating circuit for generating a voltage for controlling the gain of said amplification means, on the basis of the transmission power value output

from said first gain offset circuit, and

wherein said antenna emits the transmission signal output from said quadrature modulator and amplified by said amplification means as a transmission signal.

9. A transmission circuit as claimed in claim 5, wherein said transmission circuit further comprises:

(a) amplification means for amplifying the transmission signal output from said quadrature modulator with a gain based on a control voltage;

(b) a transmission level circuit for determining a transmission power value of the second channel data component;

(c) a first gain offset circuit for adding, to a transmission power value determined by said transmission level circuit, a first gain correction amount for controlling a gain of said amplification means to keep transmission power of the second channel data component at the antenna end constant regardless of the transmission data rate by using a combination of two gain factors determined by the transmission data rate, and outputting the transmission power value; and

(d) a voltage generating circuit for generating a voltage for controlling the gain of said amplification means, on the basis of the transmission power value output from said first gain offset circuit, and

wherein said antenna emits the transmission signal output from said quadrature modulator and amplified by said amplification means as a transmission signal.

10. A transmission circuit as claimed in claim 6, wherein said transmission circuit further comprises:

(a) amplification means for amplifying the transmission signal output from said quadrature modulator with a gain based on a control voltage;

(b) a transmission level circuit for determining a transmission power value of the second channel data component;

(c) a first gain offset circuit for adding, to a transmission power value determined by said transmission level circuit, a first gain correction amount for controlling a gain of said amplification means to keep transmission power of the second channel data component at the amplitude end constant regardless of the transmission data rate by using a combination of two gain factors determined by the transmission data rate, and outputting the transmission power value; and

(d) a voltage generating circuit for generating a voltage for controlling the gain of said amplification means on the basis of the transmission power value output from said first gain offset circuit, and

wherein said antenna emits the transmission signal

output from said quadrature modulator and amplified by said amplification means as a transmission signal.

11. A transmission circuit as claimed in claim 7, wherein said first gain offset circuit calculates transmission power of the first channel data component by using a combination of two gain factors determined by the transmission data rate, adds the transmission power as the first gain correction amount to the transmission power value determined by said transmission level circuit, and outputs the transmission power value.

12. A transmission circuit as claimed in claim 8, wherein said first gain offset circuit calculates transmission power of the first channel data component by using a combination of two gain factors determined by the transmission data rate, adds the transmission power as the first gain correction amount to the transmission power value determined by said transmission level circuit, and outputs the transmission power value.

13. A transmission circuit as claimed in claim 9, wherein said first gain offset circuit calculates transmission power of the first channel data component by using a combination of two gain factors determined by the transmission data rate, adds the transmission power as the first gain correction amount to the transmission power value determined by said transmission level circuit, and

outputs the transmission power value.

14. A transmission circuit as claimed in claim 10, wherein said first gain offset circuit calculates transmission power of the first channel data component by using a combination of two gain factors determined by the transmission data rate, adds the transmission power as the first gain correction amount to the transmission power value determined by said transmission level circuit, and outputs the transmission power value.

15. A transmission circuit as claimed in claim 7, further comprising a second gain offset circuit for adding, to the transmission power value output from said first gain offset circuit, a second gain correction amount which is used to correct an output power error caused in said quadrature modulator when said multiplication means weights the amplitudes of the first and second channel data by using gain factors for weighting the amplitudes,

wherein said voltage generating circuit generates a voltage for controlling the gain of said amplification means, on the basis of the transmission power value output from said second gain offset circuit.

16. A transmission circuit as claimed in claim 8, further a second gain offset circuit for adding, to the transmission power value output from said first gain offset circuit, a second gain correction amount which is

used to correct an output power error caused in said quadrature modulator when said multiplication means weights the amplitudes of the first and second channel data by using gain factors for weighting the amplitudes,

wherein said voltage generating circuit generates a voltage for controlling the gain of said amplification means, on the basis of the transmission power value output from said second gain offset circuit.

17. A transmission circuit as claimed in claim 9, further a second gain offset circuit for adding, to the transmission power value output from said first gain offset circuit, a second gain correction amount which is used to correct an output power error caused in said quadrature modulator when said multiplication means weights the amplitudes of the first and second channel data by using gain factors for weighting the amplitudes,

wherein said voltage generating circuit generates a voltage for controlling the gain of said amplification means, on the basis of the transmission power value output from said second gain offset circuit.

18. A transmission circuit as claimed in claim 10, further comprising a second gain offset circuit for adding, to the transmission power value output from said first gain offset circuit, a second gain correction amount which is used to correct an output power error caused in said

quadrature modulator when said multiplication means weights the amplitudes of the first and second channel data by using gain factors for weighting the amplitudes,

wherein said voltage generating circuit generates a voltage for controlling the gain of said amplification means, on the basis of the transmission power value output from said second gain offset circuit.

19. A transmission circuit as claimed in claim 15, wherein said second gain offset circuit calculates a ratio between output power of said quadrature modulator set when one combination of gain factors of gain factors used to weight the amplitudes of the first and second channel data by said multiplication means is set as a reference combination, and the reference combination of gain factors are used, and output power of said quadrature modulator set when gain factors used to weight the amplitudes of the first and second channel data by said multiplication means are used, adds the ratio as the second gain correction amount to the transmission power output from said first gain offset circuit, and outputs the transmission power.

20. A transmission circuit as claimed in claim 16 wherein said second gain offset circuit calculates a ratio between output power of said quadrature modulator set when one combination of gain factors of gain factors used to weight the amplitudes of the first and second channel data

by said multiplication means is set as a reference combination, and the reference combination of gain factors are used, and output power of said quadrature modulator set when gain factors used to weight the amplitudes of the first and second channel data by said multiplication means are used, adds the ratio as the second gain correction amount to the transmission power output from said first gain offset circuit, and outputs the transmission power.

21. A transmission circuit as claimed in claim 17 wherein said second gain offset circuit calculates a ratio between output power of said quadrature modulator set when one combination of gain factors of gain factors used to weight the amplitudes of the first and second channel data by said multiplication means is set as a reference combination, and the reference combination of gain factors are used, and output power of said quadrature modulator set when gain factors used to weight the amplitudes of the first and second channel data by said multiplication means are used, adds the ratio as the second gain correction amount to the transmission power output from said first gain offset circuit, and outputs the transmission power.

22. A transmission circuit as claimed in claim 18 wherein said second gain offset circuit calculates a ratio between output power of said quadrature modulator set when one combination of gain factors of gain factors used to

weight the amplitudes of the first and second channel data by said multiplication means is set as a reference combination, and the reference combination of gain factors are used, and output power of said quadrature modulator set when gain factors used to weight the amplitudes of the first and second channel data by said multiplication means are used, adds the ratio as the second gain correction amount to the transmission power output from said first gain offset circuit, and outputs the transmission power.

23. A transmission circuit as claimed in claim 19, wherein said second gain offset circuit includes a table storing a gain factor determined by the transmission data rate and a gain factor used by said multiplication means to weight the transmission data.

24. A transmission circuit as claimed in claim 20, wherein said second gain offset circuit includes a table storing a gain factor determined by the transmission data rate and a gain factor used by said multiplication means to weight the transmission data.

25. A transmission circuit as claimed in claim 21, wherein said second gain offset circuit includes a table storing a gain factor determined by the transmission data rate and a gain factor used by said multiplication means to weight the transmission data.

26. A transmission circuit as claimed in claim 22,

wherein said second gain offset circuit includes a table storing a gain factor determined by the transmission data rate and a gain factor used by said multiplication means to weight the transmission data.

27. A transmission circuit as claimed in claim 1, wherein the first channel data is data channel data of the transmission data, and

the second channel data is control channel data of the transmission data.

28. A transmission circuit as claimed in claim 7, wherein the first channel data is data channel data of the transmission data, and

the second channel data is control channel data of the transmission data.

29. A transmission circuit as claimed in claim 1, wherein said digital modulation means is phase modulation means for phase shifting modulating amplitude data of the first and second channel data whose amplitudes are weighted by said multiplication means.

30. A transmission circuit as claimed in claim 7, wherein said digital modulation means is phase modulation means for phase shifting modulating amplitude data of the first and second channel data whose amplitudes are weighted by said multiplication means.